D. Single-Band Renewable Portfolio Standard ("SBRPS")

Submitted by: Southern California Edison Company and Pacific Gas & Electric Company

1. Interpretation of Commission's Goals and Rationale for Strategy

This proposal interprets the Commission's December 20, 1995 policy on renewables to mean that proposals to implement the Commission's direction should maintain the level of resource diversity within California and should achieve this objective by providing for competition among both existing and new resources. Maintenance of the level of resource diversity may be achieved by replacing existing projects with new projects. The policy does not require maintenance of diversity among renewable resources.

In order to provide flexibility in achieving this objective at the lowest cost, the Commission has indicated a preference for market-based approaches. The Commission has also recognized that all customers, including direct access customers and customers of investor-owned utilities and municipal utilities, should be responsible for achieving the objective of resource diversity.

This implementation proposal meets these objectives by establishing a renewables purchase obligation of 10 percent on all sellers of electricity to end-use customers under the Commission's jurisdiction no later than January 1, 1998. Unless this obligation is extended statewide to all providers to end-use customers, including municipal utilities, through legislation by the end of the year 2000, the obligation would be eliminated. This obligation is imposed on providers to end-use customers subject to the requirement and may be fulfilled with solar, wind, biomass, and geothermal energy. The obligation is held fixed for the initial three years of the program.

2. Program Overview and Description

a. Overview

This proposal is designed to implement the Commission's policy on renewables contained in the December 20, 1995 Policy Decision (D.95-12-063 as corrected and conformed by D.96-01-009) and further defined in the March 13, 1996 Roadmap Decision (D.96-03-022). In these decisions, the Commission indicated that its policy on renewables was designed to maintain California's resource diversity and encourage the development of new renewable

resources[1]. The Commission indicated that its preferred approach for achieving these objectives was through the establishment of a Minimum Renewables Purchase Requirement (MRPR) to be implemented through a tradeable credit program[2].

b. Principles

Principles governing the MRPR implementation proposal submitted by Southern California Edison Company (SCE or Edison) and Pacific Gas & Electric Company (PG&E) include:

- The MRPR program should be simple to explain and administer.
- The costs of the MRPR program should be explicitly capped.
- Implementation of the MRPR program should be consistent with implementation of the competitive generation market, independent of the Power Exchange and Independent System Operator (ISO), and impose no power purchase requirement on the Utility Distribution Company (UDC).
- The MRPR program should maintain the current share of renewables in California's generation portfolio and should allow cost-effective new renewable development to substitute for existing renewables.
- The MRPR program should balance economic, environmental, and other societal goals.

The parties identified with this proposal believe that it is consistent with the Commission's proposed minimum renewables purchase requirement and with the above set of principles. However, the parties do not necessarily endorse the MRPR approach over possible alternative approaches for achieving the Commission's resource diversity goal.

c. Overall Approach

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[1] "We are committed to establishing restructuring policies which maintain California's resource diversity for existing resources as well as encourage development of new renewable resources." "We continue to believe that a minimum renewables purchase requirement is the best approach to meet our resource diversity goals." pp. 147, 150, D.95-12-063 as corrected and conformed by D.96-01-009.

[2] "Credits for meeting this requirement would be tradeable, similar to tradeable permits programs adopted by Congress in the Clean Air Act Amendments of 1990 and the South Coast Air Quality Management District's Regional Clean Air Incentive Market, in order to allow retail providers the most flexibility in meeting this requirement." p. 150, ibid.

A minimum renewables purchase requirement (MRPR) requires that entities selling power to end-users in California and subject to this requirement demonstrate either that they have purchased the required fraction of power from renewable energy sources or that they have purchased an equivalent number of tradeable credits. Compliance is subject to audit under the supervision of the program administrator.

A renewable energy credit (REC) is created when one kWh of renewable energy is generated and sold into the California end-use market. Renewable energy may be generated and sold by a utility distribution company (UDC), by a non-UDC retail electricity supplier, by a generator affiliated with a UDC, and by an unaffiliated independent power producer.

d. Definition of Renewables

Generation resources defined as renewables for purposes of creating an REC include: biomass (including solid fuel biomass, solid waste-to-energy facilities, landfill gas, and anaerobic digester gas); geothermal; solar (including solar thermal electric and photovoltaics); and wind.

Generators may be located in or out of state, but they are required to sell to the California market. The California market is defined as any transaction that involves selling to a California end-user through a bilateral contract, selling to a California UDC or other distribution utility in California, selling to the Power Exchange, or selling to the Independent System Operator (ISO).

e. Minimum Level of Renewables in Portfolio

REC Target: For each seller's portfolio, at least 10% of all its kWh sold to California end-users each year shall be from renewable energy as determined by the holding of a sufficient number of RECs.

Growth in Renewables: The 10% REC target is fixed through the year 2000; growth in the share of renewables in the state portfolio comes from growth in load or over compliance with the standard.

Technology Set-Asides or Subsidies: No special set-aside or subsidy for individual renewable technologies is proposed. This provision does not preclude the state from promoting commercialization of emerging technologies through RD&D funds or other means. Generation from emerging renewable technologies would not be distinguished from other renewable technologies under this program.

f. Renewable Energy Credits

RECs are based on actual renewable generation from renewable sources as generated and metered. As a result, the following applies:

- generation from partially fossil-fueled source is only partially renewable,
- generation from off-grid renewable sources is not eligible for RECs, and
- only the net generation of a net-metered solar facility counts.

Allocation of the revenues from the sale of RECs (i.e., "ownership") depends on the status of the generation project. The following provisions are proposed for utility generation, independent generation subject to existing QF contracts (i.e., contracts signed prior to January 1, 1998), and independent generation not subject to existing QF contracts.

- Utility generation subject to traditional regulation: the RECs are owned by the utility; revenues from the sale of REC goes toward reducing CTC or other ratepayer costs.
- Independent generation, including existing QFs no longer under contract: RECs are owned by the generator and traded as the owner sees fit, including sale to environmental groups for "retirement".
- Generation subject to existing QF contracts: RECs are owned by utility on behalf of ratepayers; revenues from sales of these RECs go toward reducing CTC associated with QF contracts or other ratepayer costs.

This proposal supports the development of a competitive market for RECs. If the allocation of credits results in the control of RECs being concentrated among relatively few sellers, structural mechanisms (e.g., a competitive auction conducted by the state agency) are proposed to mitigate any potential market power.

g. Administration and Compliance

Specific administrative and compliance provisions under this program include:

- Program administration is the responsibility of a qualified state agency. Neither the Power Exchange nor the ISO are to have any administrative or monitoring duties.
- Retail and other end-use sellers are to report annually to the state agency, providing total kWh sales in California subject to requirement, and surrendering required RECs.
- A three-month "true-up" period is proposed at the end of each year for self-auditing, end-of-year-transactions, and reporting.

- Renewable generators report on a quarterly basis qualifying kWh generation (i.e., renewable generation sold into the California market) to state agency responsible for administering the program.

- The state agency checks the compliance of retail and other end-use providers, and conducts spot audits of both providers and generators.

- Confirmation of compliance is sent to individual end-use sellers. Data on over- and under-compliance are provided annually to the end-use sellers and the public.

h. Cost Cap on Purchase of RECs

The state agency is to make available for purchase RECs at a set price per REC. The fee is specified as 2 cents/kWh for each REC, establishing the maximum compliance cost for this implementation proposal. This proposed fee establishes a cap on the maximum cost of the program. Any revenues collected by the state agency are to be used to promote renewable development.

i. Penalties for Fraudulent Behavior

Penalties or fines may be imposed by the state agency for end-use sellers or renewable generators found to have engaged in fraudulent behavior. Examples of fraudulent behavior would include the intentional underreporting of sales by the end-use seller and of overreporting of renewable energy production by the generator. The state agency is to assess and collect penalties or fines in these and other instances. Revenues from the penalties or fines are to be used to promote renewable development.

j. Time Horizon

Once implemented, the proposed program is to be revisited and modified, as determined to be appropriate, at the end of the year 2000 and every 5 years thereafter until the program is eliminated. Modifications may include changes in the structure of the program (e.g., target percentages, purchase fee for RECs, penalties, definition of renewables, etc.) as well as possible termination of the program. All modifications are to be consistent with legislative direction. If the legislature has not extended the program to municipal utilities by the end of the year 2000, the program will be terminated.

k. Legislation

This proposal may be implemented by the CPUC initially. The renewable purchase requirement may be imposed by the CPUC on IOUs and any other entities under its

jurisdiction. Legislation is recommended to allow for a broad-based, state-wide program imposed equally on all parties including municipal utilities and special districts.

3. Implementation Questions

a. What is the Obligation?

a.1 How is "renewables generation" defined for purposes of qualifying for tradeable "renewable energy credits" (RECs) under this proposed program? Are existing and incremental utility-owned renewables included?

Generation resources defined as renewables for purposes of this program include: biomass (including solid fuel biomass, solid waste-to-energy facilities, landfill gas, and anaerobic digester gas); geothermal; solar (including solar thermal electric and photovoltaics); and wind.

All utility-owned renewable generation is included. The value of renewable credits for utility-owned renewables subject to traditional cost-based regulation (including performance-based ratemaking mechanisms) are flowed through to utility customers.

a.2 What are renewable energy credits? How do they relate to energy portfolio management?

A Renewable Energy Credit (REC) is a tradeable "certificateÓ based on one kilowatt-hour of electric generation from a renewable fuel source. RECs are denominated in kilowatt-hours (kWhs). A REC is created when: (1) one kWh of electricity is generated from a renewable fuel source; (2) that kWh is deemed to have been sold end-users in California; and (3) a satisfactory verification of (1) and (2) is made.

a.3 How is a diversity of renewables encouraged?

The competitive market will encourage a diversity of renewables to the extent the market values diversity of renewables. Individual sellers to end-users will have the opportunity to market different forms of renewable energy which also satisfy the obligation imposed by this program. The Commission did not establish renewable diversity as a goal for this program but only suggested that it be considered.

a.4 Are currently high-cost technologies or pre-commercial technologies fostered by this program?

This proposal does not envision the minimum renewable purchase requirement (MRPR) program as a technology commercialization program nor was this goal articulated in the

Commission's Policy Decision. However, the MRPR program does help to close the gap between the cost of pre-commercial technologies and potential revenues from the market. By treating all technologies equally, the program does increase the demand and encourage further development for any pre-commercial technologies.

To the extent that certain technologies are "pre-commercial" and the Commission or legislature decides that the public interest is served by providing additional funding support to promote commercialization of specific technologies, a separate program supported could be established or the RD&D activity could be expanded to include "C" (i.e., commercialization). Either of these activities could be funded through a non-bypassable surcharge on all end-users.

a.5 How is renewable self-generation handled? Is self-generated renewable energy eligible for Renewable Energy Credits, or for other means of support?

Renewable self-generation is eligible if metered and if the generator either purchases and/or sells electric power to the grid.

a.6 How are hybrid fossil-fuel/renewable facilities handled?

Only the electric generation associated with the renewable fuel source is eligible for an REC. For example, a gas-assisted solar thermal project would "derate" every kWh generated based on the amount of heat content in the fossil-fuel used. The basis for "derating" the kWh generated would be established annually and subject to audit.

a.7 Does out-of-state generation qualify for Renewable Energy Credits? Is it desirable or necessary to protect in-state California renewable energy generators from out-of-state competition? Is it possible?

Out-of-state renewable generation deemed to be sold and delivered to California end-users qualify for RECs under this proposal. While there may be non-protectionist reasons to favor in-state generation over out-of-state generation, these arrangements are likely to be challenged as inconsistent with the Commerce Clause of the federal constitution.

a.8 If hydro is included, how are practical issues associated with hydropower handled?

Hydro power is excluded as discussed in question a.1. above.

a.9 How is utility-owned distributed renewables-generation handled? Does the proposal permit or prohibit Renewable Energy Credits from being awarded to distributed utility-owned renewable power not sold through the Power Exchange? Does the proposal

permit Renewable Energy Credits to accrue to applications that may involve the cross-subsidization of generation with T&D savings, or vice versa?

The proposal permits RECs being awarded to distributed utility-owned renewable power, preferably after the Commission addresses and resolves the various issues regarding utility-ownership of all sources of distributed generation (e.g., fuel cells, small cogeneration, photovoltaics, etc.).

a.10 What is the level for the requirement? How does this level relate to the level of renewables from 1990 to the present? Does the level of the requirement increase over time, and if so, at what rate?

The level of the requirement is set at 10% of end-use provider sales with the percentage share fixed for the initial three years of the program from 1998 through the year 2000. For the state, generation from renewable fuel sources as a percentage of total generation has varied from 10 to 11 percent for the five-year period, 1991 to 1995. (See Attachment A for definitions and calculation of percentages; CEC reports and special tabulations are primary source.) [NOTE TO READER: ATTACHMENT A WILL BE BASED ON THE SAME DATA INCLUDED IN CHAPTER I OF THE RENEWABLES WORKING GROUP REPORT.]

a.11 Describe how, if at all, the compliance obligation adjusts during a transition period.

For the first three years of the program, the percent share of end-use sales is fixed at 10 percent. Growth in customer loads will lead to increases in the level of renewable generation specified as the compliance obligation.

a.12 Does the proposal include a uniform requirement for all electric providers, including utilities, on a state-wide basis?

Yes. This proposal supports the Commission's stated preference that the obligation apply equally to all retail and other end-use sellers. Legislation is required to extend the MRPR to municipal utilities, special districts, and other end-use providers not subject to CPUC jurisdiction. A uniform requirement is reasonable for at least two reasons: (1) the benefits of renewables, including resource diversity and environmental enhancements, accrue to the economy and environment of the entire state; and (2) setting different levels for each entity, based on the resource diversity in the portfolios of individual utilities, even if adjusted gradually, would competitively disadvantage utilities with significant resource diversity.

a.13 What is the time horizon of the program?

Consistent with the Commission's December 20, 1995 Policy Decision, the MRPR program is to be revisited and possibly modified in the year 2000. If the MRPR program is continued beyond the year 2000, this proposal recommends that the MRPR program be revisited every 5 years thereafter. Possible modifications during the initial and subsequent reviews include changes, either increases or decreases, in the level of the requirement, changes in the REC purchase fee, changes in penalties, changes in the definition of renewables, and changes in the monitoring of the program. Termination of the program based on an assessment of the benefits and costs would also be considered.

All modifications should necessarily be consistent with legislative direction. If the state legislature has not extended the program or established an equivalent program for municipal utilities, the MRPR program would be terminated.

a.14 Is the requirement established on a percentage of Megawatts of percentage of Megawatt-hours basis?

Percentage of megawatt-hours basis.

a.15 Does the proposal establish floors for certain technology types? What is the rationale for a technology floor, if proposed?

No.

b. Where is the Obligation to Comply?

b.1 On whom is the requirement applied? Is the requirement applied only to entities under the Commission's jurisdiction, or it is applied state-wide?

If implemented by the Commission, the requirement would be applied to investor-owned utilities, direct access suppliers, and grid-interconnected self-generators transmitting power to another location. Legislation is required to apply the standard to municipal and cooperative utilities and special districts. This proposal supports state-wide application, but allows for implementation by the Commission through the year 2000.

b.2 Are regulated retail providers treated similarly to unregulated retail providers? If not, what are the differences?

Under this implementation proposal, the 10% renewable purchase requirement applies to all entities selling to end-users in California. As a result, there are no differences in the treatment of regulated retail providers and other end-use providers, including unregulated retail providers.

b.3 What is the penalty for non-compliance? Should this penalty be interpreted as a cost-cap for the program?

A fee of 2 cents/kWh (1995 dollars) is imposed for each REC that a retail or other end-use provider does not surrender by the end of the three-month "true-up" period which follows each annual reporting period. The fee may be refunded the following year if the provider surrenders the RECs to cover the previous deficit in the next reporting period.

This penalty is higher than the expected value of RECs for the initial three-year period. The MRPR penalty also serves as a cap on the maximum cost of complying with this program. Similar provisions were incorporated in the federal SO_2 program and in the South Coast Air Quality Management District NO_x trading program (i.e., RECLAIM).

For the initial three years of the program, the state administrator could use the revenues collected through the penalties to promote renewable development or reduce the competitive transition charge (CTC) associated with QF contracts.

b.4 How is non-compliance determined? Who is responsible for determining non-compliance and for resolving disputes arising from such a determination?

Compliance of retail and other end-use sellers is determined on an annual basis with the surrender of credits sufficient to meet obligation which is defined as a percentage of annual sales to end-users. A state-designated administrator is responsible for determining non-compliance and for establishing administrative procedures to resolve disputes. Prior to the passage of legislation, the administrator will be designated by the CPUC. If the program is extended state-wide, the required legislation will designate the administrator and corresponding enforcement powers.

b.5 What provisions add flexibility in compliance?

A 3-month true-up period as well as the ability to purchase RECs from the administrator at the purchase fee if credits are unavailable provide flexibility in compliance.

b.6 How does the program ensure that the policy and its costs are non-bypassable, such as the CTC or the Public Goods surcharge?

All retail providers are required to be certified in order to sell to end-users in California and compliance with this program is a condition for certification

c. How are Renewable Energy Credits Initially Allocated?

c.1 How are Renewable Energy Credits generated from existing renewable facilities (QFs and utility-owned) initially allocated? What impact does the initial allocation have on whether a vigorous market for Renewable Energy Credits, characterized by many buyers and sellers, forms?

There are two parts to this question: (1) who receives the value of the RECs generated from existing renewable facilities, and (2) who controls the sale of RECs.

The value of the RECs generated from utility-owned renewable facilities is passed through to all customers (utility service and direct access customers) of the specific utility with an obligation to pay CTC. Similarly, the value of the RECs generated from QFs with utility contracts is passed through to all customers of the specific utility as well. The value of RECs generated from QFs without a utility contract (e.g., QF whose contract has been bought out) flow through to the developer.

The development of a vigorous market for RECs may be impeded if control over the sale of RECs is assigned to the current holders of the contracts. To address concerns regarding the potential exercise of market power, mechanisms to mitigate any potential market power associated with the initial allocation of credits will be developed by the administrator. Assignment of the credits through an auction is one approach worthy of consideration. This approach would separate control over the sale of RECs from the revenues received from these sales.

c.2 What is the relationship between the allocation of Renewable Energy Credits and the CTC or Public Goods Surcharge? Will Renewable Energy Credits accrue to technologies, such as on- and off-grid renewables, in a way that would encourage customers to disconnect from the grid and avoid the CTC?

Under this implementation proposal, the value of RECs from existing renewables is allocated so as to reduce the CTC associated with QF contracts and utility-owned resources subject to cost-of-service regulation. The CTC charge is expected to be a non-bypassable charge to all customers whether or not they buy power from the UDC, the power pool, direct access or marketers. As a result, end-use customers with utilities with more than sufficient RECs to cover the purchase obligation will benefit from the proposed initial allocation of RECs.

The CTC mechanism proposed in the Commission's Policy Decision already provides an incentive for customers to disconnect from the grid entirely in order to avoid paying CTC. The MRPR program suggested by the Commission is effectively a subsidy to renewable energy and is expected to increase the average cost of power for end-use customers in California connected to the grid relative to the average cost of power for these customers without the MRPR program. Therefore, the MRPR program is expected to provide an additional incentive for customers to disconnect from the grid. The size of that extra

incentive depends on the increase in the costs of power due to the REC requirement compared to the size of the CTC.

This implementation proposal requires that RECs only be provided to renewable generation metered and sold to end-users connected to the grid in the state; generation from off-grid renewable applications are not eligible to receive RECs. At a result, this implementation proposal is not expected to increase the incentive of customers with the potential to use renewables off-grid to disconnect from the grid since customers would not receive RECs for power generated from off-grid renewable applications.

c.3 If customers or ratepayers are initially allocated Renewable Energy Credits, how are the credits administered?

As described under question c.1, the customers or ratepayers receive the value of the Renewable Energy Credits derived from utility generation subject to cost-of-service regulation and from existing QF contracts. Assignment of RECs through a competitive auction is one of the mechanisms suggested above to address the potential exercise of market power.

c.4 How would the proposed Renewable Energy Credit allocation affect negotiations to buy out existing QF contracts? Would it encourage or discourage such buyouts? Would it make them more or less cost-effective to ratepayers?

As discussed under question c.1, the value of RECs created by QFs with existing contracts are passed through to the customers with responsibility for paying CTC (i.e., customers who take power from the grid whether they be UDC customers, direct access customers, or buying from the pool). Therefore, the allocation of RECs proposed makes no change per se in the status of existing QF contracts.

From the customer perspective, the existence of the MRPR program increases the value of existing contracts with renewable resources. As a result, the amount that is cost-effective for the customer to pay to buyout a contract with a renewable QF is reduced. (Note: This assumes that the MRPR is viewed as a new subsidy for renewables and not a substitute for existing subsidies.).

For contract buyouts previously negotiated, the cost-effectiveness of the proposed buyout is decreased if customers are assumed to be required to replace the renewable generation through the purchase of RECs and if an equivalent renewable subsidy was not assumed as part of the initial negotiations. At present, the structure of the proposed MRPR program and, as a result, the value of RECs to be generated by specific QF projects is currently so uncertain that it is hampering the evaluation of existing buyout proposals. This uncertainty associated with the MRPR program also appears to be discouraging future buyout negotiations at this time.

c.5 How does the initial allocation deal with the possibility of windfall profits accruing to individual renewables generators, or types of generators?

According to Webster's New Collegiate Dictionary, a windfall is "An unexpected legacy, or other gain." Under this implementation proposal, the benefits or what some may term "windfall profits" accrue to the holders of the contract in the case of QF contracts and to utility-owned generation subject to cost-of-service regulation. In both instances, the value of the initial allocation is flowed through to customers to reduce the CTC associated with QF contracts and utility-owned generation subject to cost-of-service regulation. Neither the utility shareholders nor the owners of independent generators receive any windfall profits.

c.6 Does the proposal potentially increase the value of utility-owned renewable resources in a way that would encourage their divestiture? If so, how should ratepayer interests be addressed?

The response to this question is similar in many respects to the response to question c.4. As with QF projects, the RECs potentially increase the value of utility-owned renewable resources (Note: Since hydropower is excluded, this question is of primary interest to geothermal projects held by utilities.). This increase in value would potentially increase the market price for these projects. However, this increased market price is not expected to encourage divestiture more than is presently the case.

d. How is the Program Administered?

d.1 What agency certifies Renewable Energy Credits?

Whether the CPUC or state agency designated through legislation administers the program, the certification process is expected to be similar. On a quarterly basis, the renewable generator will report to the CPUC or designated agency the amount of energy generated with renewable fuel sources. The report will be reviewed for completeness and a sample selected for possible audit. The RECs generated by the renewable generator will then be assigned as directed by the generator.

d.2 What mechanisms are proposed for trading of Renewable Energy Credits? How do the trading mechanisms relate to the initial allocation of Renewable Energy Credits?

No publicly sponsored trading market for RECs is proposed. Trading of credits is expected to occur in a spot market and through bilateral contracts. The initial control of the allocations is expected to be carried out in such a way as to ensure a competitive market.

d.3 What mechanisms are proposed for program oversight and mid-course corrections?

The administering agency is expected to have the authority to make adjustments in the implementation of the program on an ongoing basis. These adjustments are not intended to change either the level of the requirement or the allocation of revenues from the creation of RECs by existing renewable projects.

Prior to the end of year 2000, a comprehensive review is proposed. This review is to address both the anticipated benefits and costs of continuing with the program, of making modifications to the program, and of terminating the program.

d.4 What agency monitors and enforces compliance with the program, and how is it carried out?

The CPUC is responsible for monitoring and enforcing compliance if the program only applies to CPUC-jurisdictional entities (e.g., regulated retail providers, non-regulated retail providers, other end-use providers). Legislation extending the program to include municipals would designate a state agency as the administrative agency. This agency necessarily should have experience with monitoring and enforcing requirements similar to those established by the MRPR program.

e. Cost-Related Issues

e.1 What are the costs associated with the program, and who pays?

The costs associated with this program depend on the incremental costs of renewables that retail and other end-use providers are obligated to procure as demonstrated through RECs. The incremental costs depend on the market price as well as other developments affecting the relative price of renewables (e.g., technological breakthroughs).

Quantifying these costs is recognized to be speculative and sensitive to various assumptions. However, the costs associated with this implementation proposal are expected to be lower than programs with higher target levels and technology bands (i.e., special provisions for specific technologies). The costs associated with this implementation proposal are also expected to be lower than programs with similar requirements but less flexibility in how the requirement is met. Attachment B provides an estimate of the costs of this implementation proposal under alternative assumptions for the average cost of credits. [NOTE TO READER: PRESENT PLANS ARE TO PROVIDE COST ESTIMATES USING SIMPLIFIED ASSUMPTIONS.]

Who pays ultimately depends on the structure of the market and how sensitive market participants are to price. Initially, the costs of the RECs are expected to be passed through to customers by retail and other end-use providers since customers are not expected to be particularly price sensitive in the short-run.

e.2 What cost-containment measures, if any, are provided?

The purchase fee for RECs of 2 cents/kWh sets a maximum on the total costs of this implementation proposal. The costs per kWh of the program are expected to be lower. In addition, the review of the program in the year 2000 also allows for the costs of the program to be balanced with the perceived benefits.

e.3 If the program utilizes floors for certain technology-types, what are the implications in terms of costs and benefits?

Not applicable since the proposal does not utilize floors.

e.4 Will implementation of the program lead to cost-shifting between consumer groups or regions of the state?

Implementation will lead to the reallocation of the costs associated with the state's policy to promote renewable development. Presently, customers within the state do not pay the same amount for the state's current resource diversity. This implementation proposal would change this situation by imposing a uniform statewide requirement for all providers of electricity to retail and other end-use customers.

e.5 How is competition within and between renewable technologies encouraged? Between existing renewables facilities and potential new facilities?

Competition within and between renewable technologies is encouraged by allowing all technologies with the exception of hydro to create RECs to be used to meet the MRPR requirement imposed on retail and other end-use providers. See question a.2 for description of the requirements to create an REC.

Competition between existing renewable facilities and potential new facilities is encouraged by allowing both existing and renewable facilities to generate RECs to be used in meeting the MRPR requirement imposed on retail and other end-use providers.

e.6 What implications, if any, does the proposal have in defining the roles of the LDC and of competitive suppliers of electricity?

No implications. All retail and other end-use providers, including both regulated and unregulated, are treated equally under this implementation proposal. The proposal will not encourage or require any change in the role of the UDC other than what is envisioned in the Policy Decision.

e.7 What is the consistency of this general proposal in relation to cost-related guidance provided by the PUC roadmap?

By proposing a uniform requirement across all retail providers, this proposal may result in "cost-shifting" among franchise utility customers. For those utilities with a smaller share of renewables than the uniform requirement, these increased costs could increase the average rate. These costs may be excluded from the costs included in calculating the average rate for purposes of determining if the utility's rate are above the specified "rate cap".

f. How does the Program Fit with Other Aspects of Electric Industry Reform?

f.1 Is the Program compatible with the existence of an Independent System Operator? A Power Exchange? A Direct Access Market? Is the Proposal consistent with the Commission's view of the role of the Power Exchange and ISO?

Yes.

f.2 Is the proposal dependent in any way on the Power Exchange or ISO? If so, are there any additional protocols necessary?

No, the proposal does not rely on the Power Exchange or ISO for implementation, and no protocols are necessary to implement this MRPR proposal.

f.3 Does the proposal involve conflicts of interest between distribution and competitive retail service? If so, how are they resolved?

No, the UDC providing regulated retail service is treated the same as retailers and other end-use sellers providing competitive or unregulated end-use service.

f.4 How does the program avoid conflicts of jurisdiction between state and federal levels?

The primary state and federal jurisdictional issue concerns possible state-imposed restrictions on wholesale power transactions. This proposal avoids state/federal jurisdictional conflicts by allowing all generators selling into the California market to generate RECs and by applying

the purchase requirement on retail and other end-use providers, which are subject to state jurisdiction.

f.5 What is the relationship between the Proposal and Direct Access "Green Marketing?"

Both this Proposal and Direct Access "Green Marketing" are designed to promote renewable development. However, this Proposal is not voluntary in that all retail and other end-use providers are subject to the MRPR requirement. Direct Access "Green Marketing" is voluntary on the part of retail and other end-use providers and their customers.

This proposal may facilitate "Green Marketing" by establishing the infrastructure for both defining renewable generation and generating RECs. A marketer of green power could sell a bundled product of RECs and electric power. By retiring the RECs sold, participating customers would be effectively increasing the share of renewables in the overall resource mix of the state.

f.6 What is the relationship between the proposal and Performance-Based Ratemaking? Does the proposal place Renewable Energy Credits under PBR, or exclude Renewable Energy Credits from PBR?

There is no explicit relationship between this MRPR proposal and PBR. The UDC may choose to propose that cost recovery of purchases of RECs be handled through a PBR mechanism. The objective of the PBR would be to provide the UDC with a reasonable opportunity to recover costs for the purchase of RECs while providing the UDC with appropriate incentives to efficiently procure RECs.

f.7 Does the program create any potential market power problems involving the generation market or Renewable Energy Credits?

No. Since the market for RECs is completely separate from the markets for power and ancillary services, the program does not create any potential market power problems involving the generation market. The potential concentration of ownership of the initial allocation of RECs is resolved by separating the allocation of the credits from control over the sale of the credits (see response to question c.1).

f.8 How does the proposal relate to any consumer protection of consumer education efforts? For example,

a) Rules for New Entrants. Does the proposal entail any licensing requirements for new entrants? Should compliance with the minimum renewables requirement be a condition of selling power at the retail level?

b) Consumer Education. Does the proposal require any consumer education? For example, how does the proposal protect customers from "green marketing" programs where marketers collect twice--once for credit sales and once for "green" power sales, thereby not increasing total green power? This could entail, e.g., amount of renewable energy they are purchasing that are supports by RECs, or statements regarding price stability of price risks associated with the seller's resource portfolio. Would RECs accrue to utilities from green pricing programs where utilities have unique customer information and access?

Compliance with this requirement is proposed as a condition of selling power to retail and other end-use customers. All retail and other end-use providers should be licensed, so that such licenses can be revoked in the event of noncompliance or fraud related to this and all other policies associated with providing retail and other end-use services.

Since the requirement is placed on retail and other end-use providers and not customers, this MRPR implementation proposal does not require any consumer education. The infrastructure developed for certification of RECs may facilitate green marketing and required consumer education and consumer protection provisions.

f.9 How, if at all, does the proposal relate to RD&D programs funded by the Public Goods Charge?

This proposal relates to RD&D programs funded by the Public Goods Charge in that it provides a "guaranteed" market for renewables (i.e., a market pull). Moreover, renewable energy generated by technologies funded by RD&D programs is not distinguished from renewable energy generated by commercialized technologies and is eligible to receive RECs. Also see response to question a.4.

f.10 How, if at all, does the proposal relate to the energy efficiency programs funded by the Public Goods Charge?

Under this proposal, RECs are based on renewable generation as generated and metered. Customer-side renewable energy applications that are not metered are not eligible for RECs under this MRPR proposal.

f.11 How does this proposal affect the CEQA compliance work recently initiated by the CPUC?

The Commission's MRPR proposal is one of many policies with environmental implications that should be considered as part of the CEQA compliance work. This implementation proposal is one of several implementation proposals which should be addressed as part of this work.

g. Implementation Steps and Legislative Requirements

g.1 Can the PUC implement this proposal by itself, or is legislation required? What would the legislative requirement be?

The PUC can implement this proposal for PUC-jurisdictional entities but not for municipals and other entities not under CPUC jurisdiction. Legislation is required to extend this program to all retail and other end-use providers in the state, including municipals and other entities not under CPUC jurisdiction.

g.2 What steps are needed to implement the program, and how long would it take? How does this implementation timing relate to the Commission's 1998 implementation goal?

Whether implemented by the CPUC or state agency, implementation does require a series of steps, including: adoption of rules defining process of obtaining RECs for renewable generation; adoption of rules defining requirement for retail and other end-use providers; development of reporting, monitoring and tracking procedures; and adoption of a dispute resolution process. If implemented state-wide, legislation is required to both establish the requirements and designate the state agency responsible for administering the program.

The amount of time required depends on the extent to which parties are able to reach a consensus on implementation procedures. An estimate of 12 months seems reasonable given the need to develop specific rules, to allow sufficient time for parties to review proposed rules, and to notify market participants of adopted rules. Some of these MRPR activities may proceed in parallel with other restructuring activities but other MRPR activities will need to be closely coordinated with these other restructuring activities. For example, MRPR reporting rules governing regulated and unregulated retail and other end-use providers should be consistent and potentially utilize the same infrastructure developed for other reporting requirements for retail and other end-use providers.

4. Positions of the Parties in Favor/Neutral/Oppose

Comments of the CPUC's Division of Ratepayer Advocates, the Utility Consumers Action Network, and the Independent Power Providers

DRA/UCAN/IPP could support this proposal if the following conditions are included:

1. The overall renewable non-compliance fee is 2.5 c/kWh ($1998), based on the BRPU increment of renewable over non-renewable second prices.

2. RECs for post-fixed-price QFs do not become tradable until the contract is bought out.

3. Non-compliance fees are not booked in PBR. They are used solely to support new renewable resources.

4. UDCs must pass through local T&D benefits to accelerate the commercialization of distributed renewables owned by customers and competing providers.

5. Credits do not accrue to distributed renewables owned by UDCs or affiliates. UDC-owned distributed renewables would conflict with key aspects of restructuring.

Comments of AWEA

OPPOSE. 2¢ fee undermines market for renewable energy credits because it's too close to the expected marginal cost. Encouraging payment of fees instead of compliance creates a pool of funds that must be publicly administered - contrary to the Commission's stated intent to avoid "prescribed allocation mechanism(s) or bidding procedure(s)." Year-2000 sunset undermines competition from new or repowered resources. Level of standard proposed under CPUC-only implementation too low to support existing level of renewables and does not support existing diversity from biomass resources. Proposed allocation of credits creates QF disadvantage in contract negotiations.

Comments of GEA

Concur with AWEA. The 2¢/kWh fee proposed will stifle the market for renewable energy credits because it's too close to the expected above-market cost of renewables. Encouraging payment of fees instead of compliance produces funds that must be publicly administered, but does nothing to preserve the renewables industry. Conversely, the 6¢/kWh penalty proposed by AWEA is high enough to virtually compel compliance. This 6¢ penalty cannot

be multiplied by the number of kWh in the RPS to calculate a cost cap on the program, as is proven in the EPA and Haddad letters included in AWEA proposal.

Comments of CBEA

Concur with AWEA. The level of standard proposed under CPUC-only implementation is too low to support even close to the existing level of renewables. If increased to 13.3% of IOU sales of kWh it would support about 90% of existing renewables. The lack of biomass standard within the overall standard would effectively eliminate the biomass generators from competition with other renewables, forcing that industry out of business and taking with it its waste management, air quality, and forestry-related benefits. The proposed year-2000 sunset, absent legislation extending the standard to all electric providers statewide, undermines development of new or repowered resources.

Comments of STEA

Concur with AWEA. The proposed allocation of credits (to IOU for all QFs under contract) eliminates the possibility of a revenue stream to the QFs, the basic purpose of which is to make QFs viable in a restructured industry and retain their associated benefits. This allocation is intended to force QFs to negotiate out of their contracts with IOUs; any forced negotiation is inherently unfair. When this forced negotiation is combined with the proposed 2¢/kWh cap on credits, the QF is essentially forced to remain under contract, foregoing credits, and defeating the entire purpose of the minimum purchase requirement.

Comments of the Surcharge/Production Credit Proposers

1. Limits cost impacts to customers: Limits total customer cost exposure by incorporating a cost cap at 2 cents/kWh.

2. Encourages renewables competition and drive for efficiency more than other MRPR proposals: By not requiring rate bands, technologies are encouraged to develop methods to bring costs down to compete among market participants.

3. May meet CPUC decision requirements: This proposal was designed to conform with the specific details of the CPUC decision but may not reflect the preferred choice of its sponsors.

Comments of Orange County, Sonoma County, the City of Sacramento, NEO Corporation

We oppose this proposal because it ends in three years if the legislature does not act to make the program State wide. This is unfinanceable help. We oppose support for existing projects. SCE's inclusion of existing facilities who terminate Standard Offer Contracts is interesting. Nevertheless, it may solve a CTC problem at the expense of renewables. The idea of having the penalty for nonperformance act as a cap on the subsidy is excellent. It avoids cumbersome policing administration. However, we feel 2¢ is too low. We can probably support elements of this proposal when combined with the EDF proposal.

Comments of the Union of Concerned Scientists

Oppose.
Pros: Exclusion of hydro avoids subsidization of a mature, fully commercialized technology and problems with annual variability.
Cons: Low 2 cent/kWh non-compliance charge, encourages non-compliance, turning competitive program into administrative program by creating non-compliance fund. Classification of non-compliance charge as business expense instead of a penalty allows for tax write-off, further decreases compliance incentive. Does not support renewables growth since MRPR does not increase. Does not adequately address issue that green marketers could double-dip by collecting RECs and charging more for energy. Will terminate in 2000 if not backed up by legislation.

Comments of Los Angeles Department of Water and Power (LADWP)

The procurement of renewable resources should be the responsibility of some state entity for the state power pool and the above-market costs of compliance should be borne uniformly by all customers served by the UDC on a non-bypassable basis. Rather than having many entities responsible for procurement of renewables, having one entity responsible for the state's procurement of renewable resources will minimize the transaction costs of compliance. The level and diversity of renewable resource mix should be established by the state legislature. The renewables program should be reviewed every five years or so.

Comments of Southern California Edison

This is the simplest of the MRPR proposals. It has no separate biomass standard. It is based on energy only and requires annual, not monthly accounting. Moreover, it has two key features that benefit electric customers.

It has an implicit cost cap of two cents per renewable kwh. Therefore no retail provider has to pay more than a two cent premium, for renewable energy.

Second, it assigns the value of renewable credits from standard offer contracts to ratepayers. This is equitable because ratepayers have already paid for these renewable projects through high priced, standard offer contracts. Projects that negotiate out of standard offer contracts can get the value of credits, however. This sets up an incentive for QFis to restructure their long term contracts.

Comments of CALSEIA/SEIA/CEC/ETDD

OPPOSE

Low Credit Ceiling Defeats Purpose: Like the RPS proposal, MRPR would not encourage diversity or new resources development because 2 cent limit is too low to finance new plants with emerging technologies. While 2 cent cap will limit MRPR cost, even for existing renewables, this cap should be raised or substantial portion of existing renewable generation will be uneconomic resulting in shortage of credits, resulting in credit values above cap value and state having to sell substantual numbers of credits. Who will collect fees, how fees will be collected and what the state collected fees will be used for need to be established. Potential program elimination in Year 2000 makes it impossible to finance new plant construction, even for established renewable technologies.

Comments of the California Integrated Waste Management Board

Qualified Support with more conditions: This proposal is similar to other MRPRs in its basic premise--all retail sellers must purchase a minimum amount of renewables.

The major concerns with the proposal are: (1) the the non-compliance penalty may be so low that there may be a financial incentive to not comply with the purchase requirement; (2) it allocates RECs to the UDCs for all renewable generators which are under Standard Offer contracts, including ones paid at SRAC; and (3) the pro-rata treatment of renewables tha use fossil fuels, such as biomass for start-up, may hurt certain generators and be very difficult to monitor.

Comments of Don Augenstein

The cost limit, effectively a “REC cap" of 2 cents/kWh appears quite possibly too low to maintain the current level of renewables. In addition certain renewables' (wood, biogas) environmental benefits are not recognized; the proposal does not support a solid fuel biomass band. The proposal omits mention of electricity from biogas (possibly unintentionally). That

renewable energy source should certainly be included. These are the main reservations with the MRPR approach as advanced by SCE and PG&E. Otherwise this proposal appears reasonable.

Comments of SoCAL Gas

NEUTRAL - Of all the minimum renewables purchase requirement proposals, this is the simplest and most straight forward. The proposal excludes hydro, a simple target of 10% of all kWh sold to all California end users is proposed, it eschews specific technology bands, and it provides for the purchase of renewable credits at a nonpunitive 2 cents/kWh, which SCE interprets as an upper bound to the cost of the program. Most appealing is the clear realization that the program should be fully reviewed every five years and if not implemented statewide, the program should be cancelled.

Comments of SDG&E

Oppose:

* Unequal cost burden on consumers. Penalizes SDG&E’s customers for not having previously been subjected to more high-priced ISO4s.
* Additional annual cost to San Diego customers estimated at $32 million based on a 2¢/kWh cap.
* Shifts costs from customers in one region to another, raising rates for some and violating the Commission's policy against cost-shifting.
* Inequitable for consuners because municipal customers pay no share of this proposal.
* Primarily subsidizes already-subsidized existing projects instead of new development.
* Inconsistent with electric restructuring; mandates distribution companies to maintain resource portfolio instead of relying on the competitive market.
* Administratively burdensome and complex.

Comments of IEP

· Proposal creates barriers for QFs to engage in contract restructuring because the value of all credits accrue to UDC.
· Represents a reduction in level of renewables attained through existing state policy.
· Policing and enforcement mechanisms to ensure compliance are unclear; relies on unnamed: state agency and may require formation of new state agency.

- Minimizes likelihood that renewable energy is actually produced as a result of the policy because (1) penalties for non-compliance are set too low (2 cents/kWh) and (2) sunsets program after only two years (absent legislation).
- Ignores existing legislation fostering renewables; requires new legislation to ensure program continuance.

Comments of the California Water Environment Association

1. RECs should be applied to energy and electricity generated from renewable sources and used onsite.

Reason: If cost for energy generated and used onsite is not competitive with market, a strong economic incentive to shut down this renewable energy and replace it with fossil fuel based energy may occur.

2. Add statement to exclude CTCs from electricity generated from renewables and used onsite.

Reason: The owner of above facility made a large investment in facility. The CTC recovers funds for power companies invested facilities. The CTC could prevent the renewables owner from recovering investment or being competitive.

Comments of PG&E

PG&E believes that all the RPS proposals, including our own proposal, may be basically incompatible with the increasingly competitive generation market. Nonetheless, we recognize that an RPS standard might be imposed. Thus, we joined with Edison to provide a variation which minimizes complexity, sets a reasonable generation target and expenditure cap, and provides for an early progress review.